

charge any additional fee required for the extension, and credit any overpayment, to Deposit Account 06-1205.

II. This is in response to the Office Action dated June 4, 2003, the period for reply having been extended by the above petition and payment of the extension fee. Please consider the following remarks.

### B. Remarks

The claims are 1-18, with claims 1, 3, 5, 7, 9 and 14 being independent. Reconsideration of the pending claims is respectfully requested.

Claims 1-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Schramm (U.S. Patent No. 3,511,667). Applicants respectfully traverse this rejection.

The presently claimed low-staining orange food coloring compositions, process for producing a low-staining orange food coloring composition, orange colored beverage compositions, and process for producing a low-staining orange colored beverage are not obvious in view of Schramm. Each embodiment of the present invention shares a key feature, namely the combination of a yellow dye selected from the group consisting of FD&C Yellow #5, quinoline yellow and combinations thereof, and a red dye selected from the group consisting of carmoisine, Ponceau 4R, FD&C Red #40, amaranth and combinations thereof; importantly, the yellow dye and the red dye are present in a ratio of from about 4:1 yellow : red to about 2:1 yellow : red. Using a combination of the recited dyes in the recited ratio range results in a food coloring composition having an intense orange color, but which is responsible for little or no staining when used in a food or beverage. No other conventional anti-staining agents are required to achieve the low-

staining effect of the present invention. It is the precise selection and combination of suitable yellow and red dyes which results in the advantages of the present invention.

As set forth in the present specification at pages 1-4, the use of an intense orange color is necessary in the food and beverage industry. In fact, the intensity of the orange color remains one of the most important factors, second only to taste, with respect to orange-flavored beverages; the color is essential in supporting the expectation of the flavor. However, while holding intense orange color in high regard, consumers often voice concern and dissatisfaction with the lip, tongue, and teeth staining caused by FD&C Yellow #6, which, despite its name, is typically used to achieve a bright orange hue. In addition to the potential loss of consumer use due to dissatisfaction with staining, staining raises marketing costs for food and beverage products which employ intensely orange hues, as models stain during photo shoots and filming of advertisements and commercials. The present invention overcomes the above-noted disadvantages associated with staining, while at the same time achieves an uncompromised intensely orange color for use in food and beverages.

The Examiner cites Schramm as providing disclosure which renders the present invention obvious. Applicants respectfully disagree with the Examiner's interpretation of Schramm. As set forth clearly therein, Schramm is directed to the use of insoluble lakes as the coloring matter for water soluble coloring compositions or dyes (col. 1, lines 21-23). Schramm is aimed at providing a water soluble color system which is capable of imparting proper color in both dry and wet or dissolved forms (col. 2, lines 23-26). Schramm necessarily involves the plating of insoluble lakes on water soluble carriers which preferably contain a water soluble acid (col. 2, lines 55-58); in such a way, the

insoluble lake is rendered soluble and can then be used to successfully color dry or powdered foodstuffs as well as their wet or dissolved counterparts.

The Examiner alleges that Schramm teaches making color blends which include FD&C Red No. 2, FD&C Red No. 3 and FD&C Yellow No.6. In actuality, Schramm teaches that straight colors such as the three noted above (or blends thereof) can be used to synthesize the insoluble lakes which are essential to the invention of Schramm (col. 3, lines 55-57; col. 4, line 1). Lakes are simply not used in the present invention. In fact, the particularly recited red dye required by the present invention (carmoisine, Ponceau 4R, FD&C Red No. 40 or amaranth) is not disclosed or suggested for use in any way by Schramm. In addition, quinoline yellow, which can be the particularly recited yellow dye required by the present invention, is not disclosed or suggested for use in any way by Schramm. What is more, Schramm teaches the equivalence of FD&C Yellow No. 5, which can be the particularly recited yellow dye required by the present invention, and FD&C Yellow No. 6 by including both in the laundry list of straight colors (col. 4, lines 1-18). While these two yellows may be equivalent when used to synthesize an insoluble lake, there is no equivalence with regard to color achieved or staining potential; these yellows are not equivalent for purposes of the present invention.

At page 3 of the Office Action, the Examiner acknowledges that Schramm fails to disclose or suggest an orange food coloring composition which contains both the recited yellow dye and the recited red dye of the present invention and which contains those dyes in the range recited in the present claims. Schramm's failure in these regards is dispositive on the question of whether the present invention is obvious - the answer is no. In the end, Schramm does not disclose or suggest any element of the present invention.

Schramm does not disclose or suggest combining water soluble yellow and red dyes to make a low-staining orange food coloring composition. Schramm does not disclose or suggest any ratio in which yellow and red dyes must be combined to make a low-staining orange food coloring composition.

In light of Schramm's failure to disclose or suggest the key features of the present invention, the Examiner offered the following statement: "With respect to applicant's 'low-staining' recitation, it is believed that the blended colors taught in Schramm would provide a low staining blended food coloring composition especially since applicant has not claimed that materials such as surfactant or gallotannin or a stain inhibiting component with the food color composition." In making such a statement, the Examiner overlooks the basic premise of the present invention, namely the achievement of an intense but low-staining orange color through the use of a blend of particularly recited yellow and red dyes in a particularly recited ratio. No other materials such as surfactant or gallotannin or stain inhibiting agent is necessary to achieve the low-staining of the present invention - only a particular yellow/red dye combination in a particular yellow : red ratio. Schramm is silent with regard to both of these elements. In addition, the Examiner's belief that any of the blended colors taught in Schramm would result in a low-staining composition is completely unfounded; case in point, FD&C Yellow No. 6 (set forth at column 4 of Schramm) is highly staining whether used alone or in combination.

Finally, Schramm's general teachings with respect to the capability of those skilled in the art in blending colors to achieve suitable hues provides no guidance in, and evidences no knowledge of, the formulation of a low-staining orange food coloring composition. Simply put, given the disclosure of Schramm, one of ordinary skill in the art

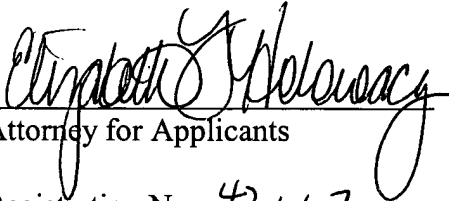
would be motivated to make a food coloring composition which necessarily includes an insoluble lake plated onto a soluble carrier. Such a composition could be used alone or in combination with another color material. Such a composition is very different from the low-staining orange food coloring composition of the present invention.

For all of the above reasons, it is clear that Schramm fails to render the present invention obvious. Each embodiment of the present invention relates to an intensely colored yet low-staining orange food coloring composition (which has been sought to no avail for many years in the food and beverage industry) which utilizes a combination of a yellow dye (FD&C Yellow #5, quinoline yellow or a combination thereof) and a red dye (carmoisine, Ponceau 4R, FD&C Red #40, amaranth or a combination thereof) in a ratio of from about 4:1 yellow : red to about 2:1 yellow : red. Not only does Schramm fail to disclose or suggest any of these features of the present invention, but Schramm does not even recognize or address the problem solved by the present invention. Accordingly, Applicants respectfully request withdrawal of the §103 rejection.

In view of the foregoing remarks, favorable reconsideration and passage to issue of the present case is respectfully requested. If, upon consideration of this paper, the Examiner believes there are any outstanding issues, it is respectfully requested that the Examiner contact the undersigned attorney in an effort to expeditiously resolve such issues.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

  
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